



GooLED

GooLED-SEO-6850 Pin Fin Heat Sink Φ 68mm for Seoul

Features VS Benefits

- * The GooLED-SEO-6850 Seoul Pin Fin LED Heat Sinks are specifically designed for luminaires using the Seoul LED engines.
- * Mechanical compatibility with direct mounting of the LED engines to the LED cooler and thermal performance matching the lumen packages.
- * For spotlight and downlight designs from 900 to 2,600 lumen.
- * Thermal resistance range R_{th} 3.23°C/W.
- * Modular design with mounting holes foreseen for direct mounting of Seoul COB series and AC Modules.
- * Diameter 68.0mm - standard height 50.0mm, Other heights on request.
- * Forged from highly conductive aluminum.



Zhaga LED engine and radiator assembly is a unified future international standardization

- * Below you find an overview of Seoul COB's and LED modules which standard fit on the Pin Fin LED Heat Sinks.
- * In this way mechanical after work and related costs can be avoided, and lighting designers can standardize their designs on a limited number of LED Pin Fin LED Heat Sink.



Seoul LED Modules directly Mounting Options

Seoul COB Series, Size 28x28mm.

- | | |
|------------|-----------|
| SDW04F1C; | SDW84F1C; |
| SDW05F1C; | SDW85F1C; |
| SDW06F1C; | SDW86F1C; |
| SAW822xxx; | SDW94F1C; |
| SAW922xxx; | |

With the Zhaga Book 3 holders for the green indicator marks.
 BJB holder: 47.319.2030.50; AAG.STUCCHI: 8102-G2
 Without the holders for the blue indicator marks.
 Direct mounting with machine screws M3x6.5mm.

Seoul COB Series, Size 19x19mm.

- | | |
|-----------|-----------|
| SDW02F1C; | SDW82F1C; |
| SDW03F1C; | SDW83F1C; |
| SDW92F1C; | |

With the Zhaga Book 3 holders for the green indicator marks.
 BJB holder: 47.319.2021.50; AAG.STUCCHI: 8101-G2
 Without the holders for the red indicator marks.
 Direct mounting with machine screws M3x6.5mm.

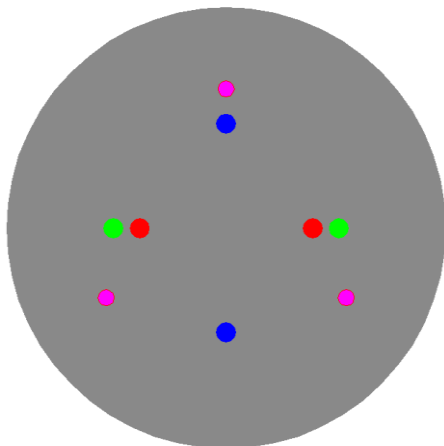
With the LEDiL products:

- Olivia series: FN14637-S; FN14828-M;
 Ronda series: FN15xxx-xx;

AC LED Modules, Size Φ 46mm.

- | | |
|----------------|----------------|
| SMJE-2D08W4PD; | SMJD-3D08W4PD; |
| SMJE-2D08W4PE; | SMJD-3D08W4PE; |
| SMJE-2D12W4PD; | SMJD-3D12W4PD; |
| SMJE-2D12W4PE; | SMJD-3D12W4PE; |

Direct mounting with 3 screws M2x6.5mm.
 Pink indicator marks.





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Mounting Options and Drawings & Dimensions

Example:GooLED-SEO-6850-B-1,2

Example:GooLED-SEO-68 **1** - **2** - **3**

1 Height (mm)

2 Anodising Color

B-Black

C-Clear

Z-Custom

3 Mounting Options - see graphics for details Combinations available

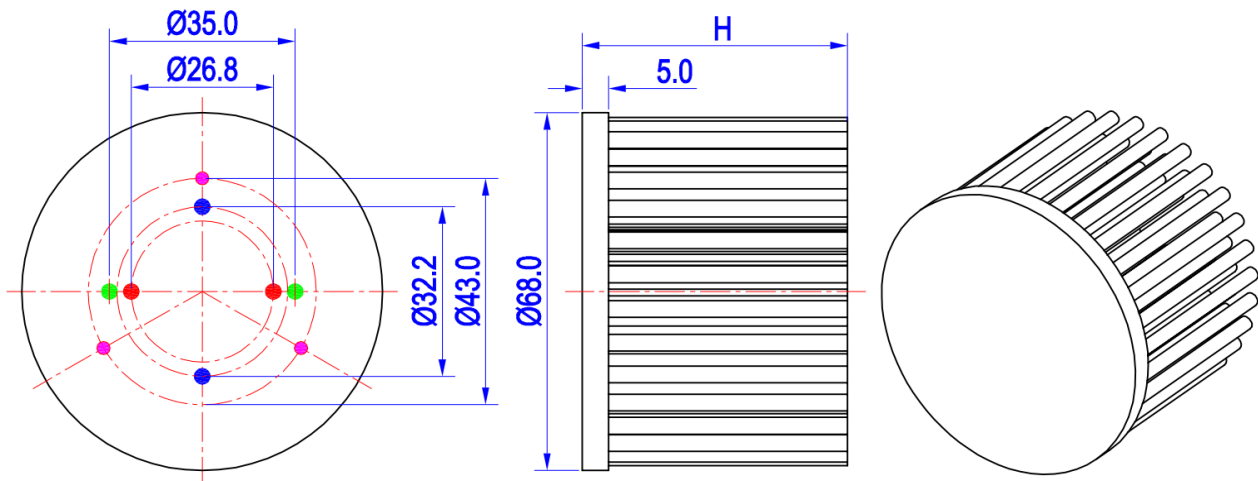
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means option 1 and 2 combined

Notes:

- Mentioned models are an extraction of full product range.
- For specific mechanical adaptations please contact MingfaTech.
- MingfaTech reserves the right to change products or specifications without prior notice.

MOUNTING OPTION	Module type	Holder NO.	LEDiL products		THREAD	THREAD DEPTH	THREAD HOLE DISTANCE
			Olivia series	Ronda series			
1	COB Size 19x19mm	/	FN14637-S; FN14828-M;	FN15xxx-xx;	M3	6.5mm	26.8mm/ 2-@180°
2	COB Size 28x28mm	/	/	/	M3	6.5mm	32.2mm/ 2-@180°
3		BJB Holder 47.319.2030.50		/	/	M3	6.5mm
	AAG.STUCCHI 8102-G2	/	/				
4	AC Module	BJB Holder 47.319.2021.50	FN14637-S; FN14828-M;	FN15xxx-xx;	M2	6.5mm	43.0mm/ 3-@120°
		AAG.STUCCHI 8101-G2	/	/			



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The product data table

	Model No.	GooLED-SEO-6850
	Heatsink Size	Φ68xH50mm
	Heatsink Material	AL1070
	Finish	Black Anodized
	Weight (g)	153.0
	Dissipated power (T_{hs-amb},50°C)	15.5 (W)
	Cooling surface area (mm²)	59562
	Thermal Resistance (R_{hs-amb})	3.23 (°C/W)

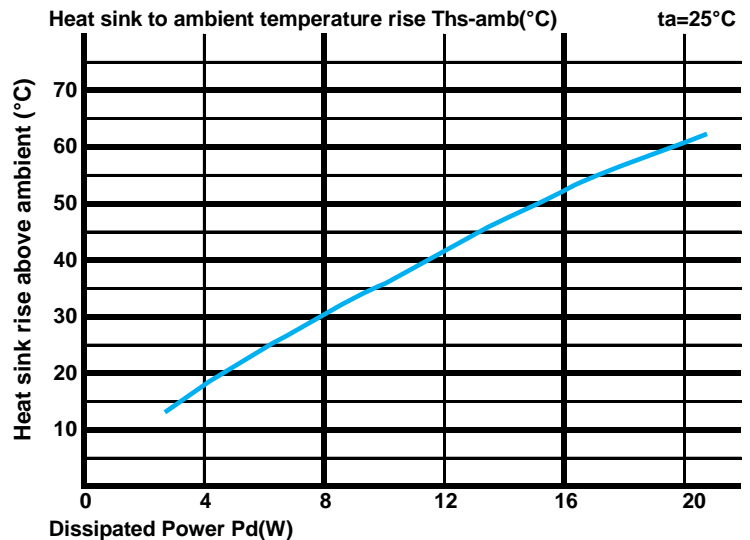
The thermal data table

* Please be aware the dissipated power Pd is not the same as the electrical power Pe of a LED module.

*To calculate the dissipated power please use the following formula: Pd = Pe x (1-ηL).

Pd - Dissipated power ; Pe - Electrical power ; ηL = Light efficiency of the LED module;

Dissipated Power Pd(W)	Pd = Pe x (1-ηL)	Heat sink to ambient thermal resistance R _{hs-amb} (°C/W)	Heat sink to ambient temperature rise T _{hs-amb} (°C)
		GooLED-SEO-6850	
4.0		4.25	17.0
8.0		3.75	30.0
12.0		3.42	41.0
16.0		3.25	52.0
20.0		3.00	60.0



*The aluminum substrate side of the package outer shell is thermally connected to the heat sink via TIM (Thermal interface material).

MingFa recommends the use of a high thermal conductive interface between the LED module and the LED cooler.

Either thermal grease, A thermal pad or a phase change thermal pad thickness 0.1-0.15mm is recommended.



*Thermal resistance is a heat property and a measurement of a temperature difference by which an object or material resists a heat flow.

Geometric shapes are different, the thermal resistance is different. Formula: $\theta = (T_{hs} - T_a) / P_d$

θ - Thermal Resistance [°C/W]; T_{hs} - Heatsink temperature; T_a - Ambient temperature;

*The thermal resistance between the junction section of the light-emitting diode and the aluminum substrate side of the package outer shell is R_{junction-case}, the thermal resistance of the TIM outside the package is R_{interface (TIM)} [°C/W], the thermal resistance with the heat sink is R_{heatsink-ambient} [°C/W], and the ambient temperature is T_{ambient} [°C].

*Thermal resistances outside the package R_{interface (TIM)} and R_{heatsink-ambient} can be integrated into the thermal resistance R_{case-ambient} at this point. Thus, the following formula is also used:

$$T_{junction} = (R_{junction-case} + R_{case-ambient}) \cdot P_d + T_{ambient}$$